

## COMPARATIVE STUDY OF CREATIVE MOTOR RESPONSE BETWEEN NORMAL AND ORTHOPEDICALLY CHALLENGED PERSONS



### Physical Education

**KEYWORDS:** Epilepsy, Developmental delay, Child, Brain, Neuroimaging, MRI.

**Lakshman Kumar Mondal**

Department of Physical Education, Panskura Banamali College, Panskura, Purba Medinipur, W.B

**Dr. Amit Banerjee**

PGIPE, Banipur, W.B..

### ABSTRACT

Creative motor response is the ability to produce both varied and unique motor response to a stimulus. It is a combined expression of vital and innovative thinking and motor ability through creative movement. This study was considered to those individuals having orthopedically defects in upper limbs and a group of normal person having no physical defects. One hundred twenty normal students and one hundred twenty orthopedically challenged students in the age range of 14-18 years were considered in the different schools of West Bengal. Comparison between normal and physically challenged persons in respect of creative motor response was done through the technique of mean difference by employing the statistic of 't' ratio. The results shows that normal subjects were superior to physically challenged subjects in respect of creative motor response.

**Introduction:** Oliver(1994)found that the disable children, for various reasons are deprived of physical activities. Some are unable to withstand the vigorous and strenuous play activities of normal children, some find the activities too dangerous, some are rejected by the other participants and some tend to withdraw from play situations. Because of this, the physical characteristics of the children tend to deteriorate instead of improving. He also found that it appears to be an urgent need for systematic physical activity, either in the form of carefully structured programmes of Physical Education or in the form of spontaneous play and recreation for all handicapped children. The present study was an attempt on the part of the investigator to determine the creative motor response of physically challenged persons and compare it with normal people, so that effort can be made in the right direction to integrate them with other people of the society.

**Statement of the Problem:** The purpose of the study was to find out the level of creative motor response of the orthopedically challenged persons and compare them with that of the normal persons.

#### Procedure:

Selection of Subjects: For the present study, sixty boys and sixty girl students having disability in upper limb and sixty normal boys and sixty normal girls, within the age range of 14 to 18 years, were selected.

**Criterion Measures:** To asses Creative Motor Response students were exposed to Motor Creativity Test battery formulated by Prof. A. K. Bhattacharyya and Dr. M. C. Ghosh.

**Statistical Analysis:** Comparison between normal and orthopedically challenged persons in respect of creative motor response were obtained through the technique of mean difference by employing the statistic of 't' ratio.

#### Analysis of Data

**Table - 1: Mean and Standard Deviation of Creative Motor Response of Normal and Orthopedically Challenged Students**

Variables	Normal Students		Orthopedically Challenged Students	
	Mean	S.D.	Mean	S.D.
Creative Motor Response	77.600	3.907	49.050	3.281

From table -1 it was evident that normal subjects were superior to orthopedically challenged subjects in respect of creative motor response.

**Table - 2: Mean Difference of Creative Motor Response among Normal and Orthopedically Challenged Students**

	Population	Mean	S.D.	t' value
Creative Motor Response	NS	77.600	3.907	61.530*
	OCS	49.050	3.281	

NS = Normal Students, OCS = Orthopedically Challenged Students

\* Significant at 0.05 level of Confidence,  $t_{.05}(238) = 1.960$

From Table - 2 it was evident that orthopedically challenged subjects were significantly different from that of the normal subjects in respect of creative motor response

**Table - 3: Mean And Standard Deviation of Creative Motor Response Between Normal and Orthopedically Challenged Boys and Girls Students**

Variables	Normal Students		Orthopedically Challenged Students	
	Mean	S.D.	Mean	S.D.
Creative Motor Response of Boys Students	77.983	3.942	49.383	3.263
Creative Motor Response of Girls Students	77.216	3.866	48.716	3.294

From table -3 it was evident that normal boys were superior to orthopedically challenge boys students in respect of creative motor response score. It is also showed that orthopedically challenged girl subjects were superior to normal girl subjects in respect of creative motor response were found superior.

**Table - 4: Mean Difference of Creative Motor Response between Normal and Orthopedically Challenged Boys and Girls Students**

Variables	Population	Mean	S.D.	t' value
Creative Motor Response	NS-boys	77.983	3.942	43.399*
	OCS-boys	49.383	3.263	
	NS-girls	76.267	3.866	43.577*
	OCS-girls	48.716	3.294	

NS = Normal Students, OCS = Orthopedically Challenged Students

\* Significant at 0.05 level of Confidence,  $t_{.05}(118) = 1.980$

Table - 4 indicated that orthopedically challenged boys subjects were significantly different from that of the normal boys subjects in respect of creative motor response. It was also evident that the orthopedically challenged girl subjects were significantly different from normal girl subjects in respect of creative motor response.

**Table - 5: Mean and Standard Deviation of Creative Motor Response between Normal and Orthopedically Challenged Students During Early and Late Adolescents Period**

Variables	Status	Normal Students	Orthopedically Challenged Students

		Early Adolescents	Late Adolescents	Early Adolescents	Late Adolescents
Creative Motor Response	Mean	77.050	77.090	48.983	49.116
	S.D.	4.014	3.749	3.186	3.400

From Table- 5 it was observed that normal subjects of early adolescent and late adolescent period were superior to orthopedically challenged subjects in respect of creative motor response

Table – 6: Mean Difference Of Creative Motor Response Between Normal And Orthopedically Challenged Students During Early Adolescents Period And Late Adolescents Period

Variables	Population	Mean	S.D.	t' value
Creative Motor Response	NS-EAP	77.050	4.014	42.461*
	OCS-EAP	48.983	3.186	
Creative Motor Response	NS-LAP	77.090	3.749	42.904*
	OCS-LAP	49.116	3.400	

OCS-LAP49.1163.400 NS = Normal Students, OCS = Orthopedically Challenged Students, EAP= Early Adolescents Period

\* Significant at 0.05 level of Confidence,  $t_{05} (118) = 1.980$

From Table – 6 it was found that orthopedically challenged subjects falling in early adolescent group differed significantly from that of the normal subjects of the same age group in respect of creative motor response. It was also evident that orthopedically challenged subjects of late adolescent period differed than normal subjects of late adolescent period in variables of creative motor response.

**Discussion of the Findings:** The obtained data on the subjects through application of statistical technique revealed that normal subjects, irrespective of age and were for superior to orthopedically challenged (defect in upper portion) subjects in relation to creative motor response. That might be due to the fact that disability has a deep rooted depressive effect on the orthopedically challenged persons which provoke them to confine within themselves or with the peers. Thus they were less exposed to physical activities or game situation where as the normal subjects – male or female, of all age groups engaged themselves in physical activities and become conversant with different movements of a number of games. Familiarity with different movements on the part of normal subjects and unawareness of those movements on the part of the orthopedically challenged subjects made that difference.

#### References

1. Barry L. Johnson and Jack K. Nelson, Practical Measurement for Evaluation in Physical Education, (Third Edition), Surjeet Publication, Delhi, 1994.
2. Clarke, H. Harison and Clarke Devid., H. Development and Adapted Physical Education, (2nd Edition), New Jersey: Prentice Hall Inc; 1978.
3. Ghosh, M. C. "A Study in Creativity, Motor Ability and Motor Creativity of Adolescents". A Ph.D. Thesis Submitted to the University of Kalyani.
4. Johnson, Barry, L. and Nelson, Jack K. Practical Measurements for Evaluation in Physical Education (3rd Edition ), Delhi: Surjeet Publication. (1982).